



Education Interim Committee
65th Montana Legislature

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TO: Education Interim Committee
FROM: Pad McCracken, Committee Staff
RE: Retirement GTB Potential Issue and Options
DATE: June 11, 2018

During the "[School Funding 101](#)" workshop at the committee's March meeting, staff emphasized the many "dials, levers, and switches" within Montana's school funding formula(s) and the policy choices often attendant to those "settings." One of the mechanisms used to explain this was the way in which the state provides guaranteed tax base aid (GTB) to eligible counties as they levy taxes to support countywide school retirement (RET) costs. A quick nutshell refresher:

1. Each school district in the county calculates its estimated RET costs for the coming year (its employer obligations to both TRS and PERS, as well as for FICA and UI, based on the salaries of its employees). After subtracting any fund balance that exceeds the 20% reserve limit in the district's RET fund, the district communicates the required amount to the county superintendent.
2. The county superintendent totals all of the districts' needs, then utilizes any county RET fund balance and various nonlevy revenues to cover the total. Any remaining need is funded through a countywide levy. School retirement costs are shared by county taxpayers.
3. If a county's taxable value (TV) divided by its total ANB is less than the statewide guarantee amount (the statewide TV/ANB * 1.21) the county is eligible for a state GTB subsidy on every mill it levies. The amount of the subsidy is the amount necessary to bring the county up to the statewide guarantee; "poorer" counties receive a larger subsidy per mill.

The potential issue identified by staff is whether ANB is the best proxy to use for a county's RET funding need. Here's how staff explained the dynamic in the funding presentation:

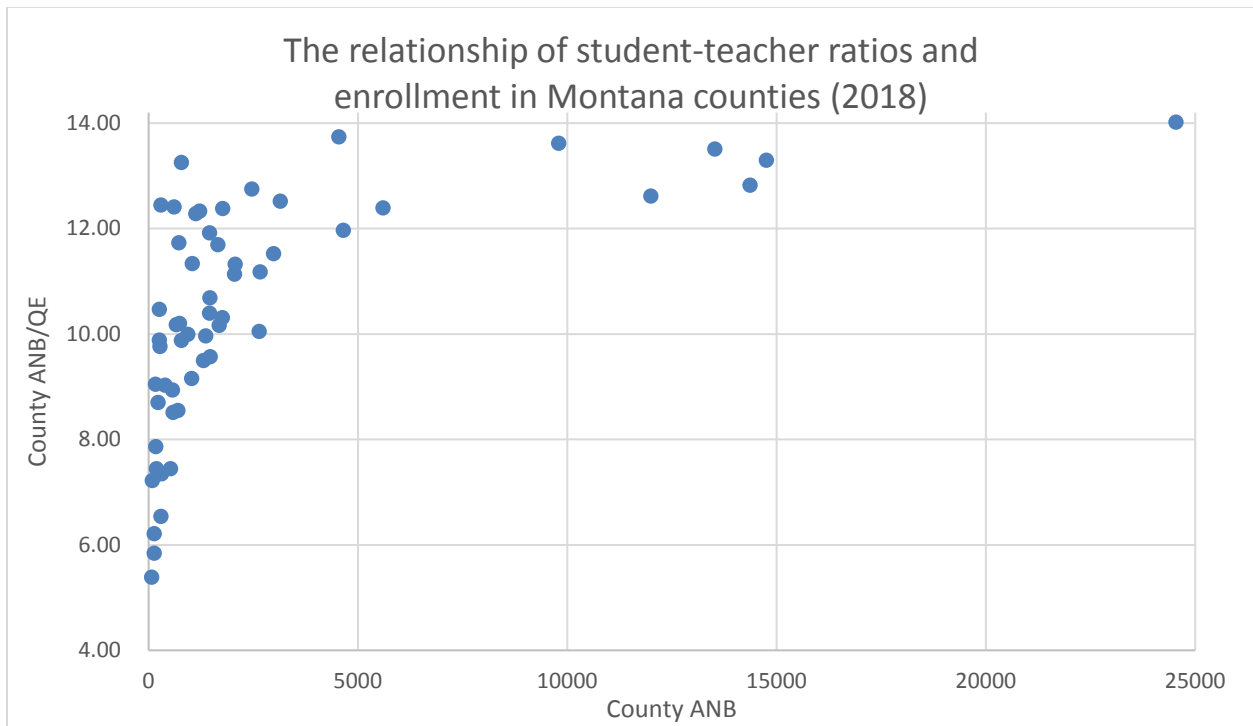
Smaller districts generally have lower student (ANB) to teacher (QE) ratios, maybe 5:1 to 10:1. Larger districts can often maintain ratios closer to 15:1. This means that smaller districts generally have more QE (and likely higher retirement costs) relative to ANB.

Considering concerns about recruitment and retention and teacher salaries, especially in isolated rural districts, the committee may want to examine the impacts of “flipping the switch” in this mechanism from ANB to QE or to actual retirement costs, if possible.

The committee expressed interest in exploring this question further, hence this memo.

Student-teacher ratios as a function of enrollment

The scatterplot below shows that as a county’s enrollment increases, so too does its student-teacher ratio. Counties (and schools) with lower enrollment generally have smaller class sizes and operate with fewer students per teacher. Yellowstone County, Montana’s largest enrollmentwise, operates at a ratio of 14 ANB for every QE. Meanwhile, Treasure County with only 69 ANB operates with 13 QE for a ratio of 5.4.



Complications

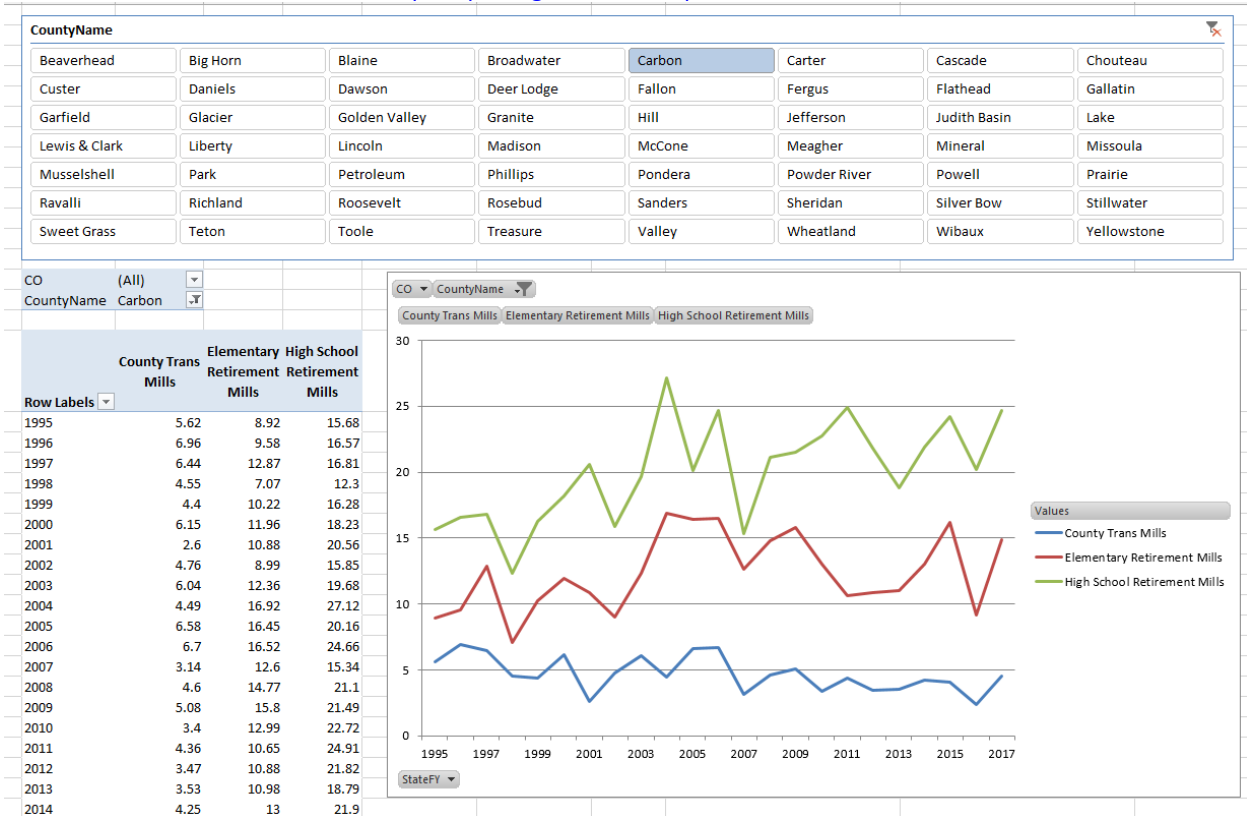
The nutshell description on page 1 of how RET costs are funded ignored a number of details that complicate this discussion:

1. RET costs are split into high school (HS) and elementary (EL). This is why you have a line on your tax bill for “County High Retirement” and one for “County Elem Retirement.” The necessity of this split is not clear and may be a remnant of the days when EL districts were creatures of local districts but HS districts were county-based.

2. Joint districts—joint districts are school districts with territory in more than one county; Montana has 28 school districts with territory in two counties and another 6 with territory in three counties; the revenue requirements for school funding that are raised at the county level—retirement and some transportation—are split between these counties based on where students actually reside.
3. Fluctuating costs—expenditures for retirement are based on an individual employee’s salary; when a higher-salaried employee is replaced with a lower-salaried employee, retirement costs for that position can be greatly reduced (and vice versa); when a long-serving teacher retires, the district may have to pay a significant extra amount to TRS based on termination pay; in counties with large numbers of teachers and other employees, these effects are smoothed from year to year, but less so in counties with few teachers; this variability in retirement expenditures drives fluctuations in the number of mills levied (see example below; numerous other factors can drive these fluctuations as well).
4. Legislative changes—when the legislature changes employer contribution rates for TRS, district expenditures are impacted; other changes, like the “cap and sweep” of district retirement funds in 2013 create variations as well.

This is a screenshot from County FP9 report data available on the OPI website. It shows fluctuations in the number of mills levied for elementary and high school retirement (and for the county school transportation reimbursement) in Carbon County since 1995.

<http://opi.mt.gov/Leadership/Finance-Grants/School-Finance/FinancialDataFiles>



Retirement GTB eligibility over time

It should not surprise policymakers that a number of rural Montana counties have lost population and experienced declining school enrollment in recent decades. At the same time, population and enrollment have increased in Montana counties with “urban” centers. Because RET GTB eligibility is a function of taxable values and enrollment, this population shift may be responsible for several counties losing RET GTB eligibility since 2004. See Map 1 on page 5.

Possibilities, impacts, and cautions

Montana’s current mechanism for calculating state retirement GTB aid uses a proxy for retirement costs, ANB, that favors counties with high enrollment. There are a couple of possibilities for alternatives.

Perhaps the most desirable alternative would be to use the actual funding need—the amount of money that counties need to distribute to school districts to fund district retirement budgets. Unfortunately, due to the fluctuations in retirement costs explained above, using the actual funding need in the GTB calculation exacerbates the variability of the number of mills required to be levied. The existing “yo-yo” effect is magnified because GTB calculations need to use data from the prior year.

The next best choice may be to use the number of teachers, administrators, counselors, etc. employed by districts, QE, rather than ANB. This gets at the main limitation of using ANB—that it ignores differences in class size and student-teacher ratios. As we’ve established, small schools generally need more teachers (and other staff) per student. Using QE instead of ANB would cause more of Montana’s rural, low-population, and low-taxable-value counties to be eligible for RET GTB, particularly those that due to demographics and geography cannot achieve the economies of scale (larger class sizes) that come with higher-enrollment schools. See Map 2 on page 5.

Using QE would mean that some population-dense counties would see a decrease in their state RET GTB subsidy per mill, causing mills to increase. For an idea of the impacts, see the table on page 6. This change would also reduce the total state RET GTB obligation by roughly \$5 million, but state support could be maintained at the current level by increasing the current multiplier (121%) used to establish the statewide guarantee amount. This would lower mill rates in districts that receive GTB and perhaps make another county or two eligible for modest GTB support.

Like all things school funding, this is complicated. And, as is frequently the case, there is some pain when the distribution of resources is changed. The analysis in this memo represents a “best effort” to provide you with accurate information to consider this policy decision.

If the committee desires to pursue changing the RET GTB calculation from ANB to QE, it would involve amending several sections of statute. Staff could prepare a bill draft for your review and public comment at your final meeting in September.

County retirement GTB distributions and mills under current law and if calculated using QE instead of ANB
(current law actuals for 2018; 2018 estimates for QE from OPI RET GTB model; highlighted counties newly eligible)

COUNTY	Current Law TOT RET GTB AID	If QE TOT RET GTB AID	Difference TOT RET GTB AID	Current Law TOT RET mills	If QE TOT RET mills	Difference TOT RET mills
Beaverhead	\$ 232,388	\$ 145,076	\$ (87,312)	44.17	48.20	4.03
Big Horn	\$ 1,182,542	\$ 1,203,094	\$ 20,552	37.54	36.70	(0.84)
Blaine	\$ 823,435	\$ 918,798	\$ 95,363	50.66	44.08	(6.58)
Broadwater	\$ 197,800	\$ 245,031	\$ 47,231	29.94	26.98	(2.96)
Carbon	\$ -	\$ 245,172	\$ 245,172	42.20	36.12	(6.08)
Carter	\$ -	\$ -	\$ -	3.35	3.35	-
Cascade	\$ 4,492,719	\$ 3,775,420	\$ (717,299)	45.77	50.19	4.42
Chouteau	\$ -	\$ 44,441	\$ 44,441	35.48	33.73	(1.75)
Custer	\$ 637,134	\$ 549,591	\$ (87,543)	37.76	41.68	3.92
Daniels	\$ -	\$ 27,470	\$ 27,470	35.24	31.67	(3.57)
Dawson	\$ 242,856	\$ 213,383	\$ (29,474)	39.58	40.72	1.14
Deer Lodge	\$ 375,002	\$ 337,508	\$ (37,494)	33.75	36.58	2.83
Fallon	\$ -	\$ -	\$ -	0.00	0.00	-
Fergus	\$ 288,980	\$ 464,040	\$ 175,060	46.43	41.32	(5.11)
Flathead	\$ 3,368,668	\$ 2,268,434	\$ (1,100,234)	43.11	47.64	4.53
Gallatin	\$ 1,240,914	\$ 226,383	\$ (1,014,531)	42.20	45.74	3.54
Garfield	\$ -	\$ 35,916	\$ 35,916	39.36	32.70	(6.66)
Glacier	\$ 1,987,321	\$ 1,944,881	\$ (42,440)	55.71	57.30	1.59
Golden Valley	\$ -	\$ 115,096	\$ 115,096	36.42	17.61	(18.81)
Granite	\$ -	\$ 43,617	\$ 43,617	28.96	25.50	(3.46)
Hill	\$ 1,576,673	\$ 1,462,346	\$ (114,327)	52.91	55.84	2.93
Jefferson	\$ 279,944	\$ 413,147	\$ 133,202	40.57	36.06	(4.51)
Judith Basin	\$ -	\$ -	\$ -	28.05	28.05	-
Lake	\$ 1,692,856	\$ 1,903,846	\$ 210,990	48.05	44.71	(3.34)
Lewis & Clark	\$ 3,476,259	\$ 2,397,350	\$ (1,078,908)	41.86	49.96	8.10
Liberty	\$ -	\$ 29,311	\$ 29,311	19.50	16.51	(2.99)
Lincoln	\$ 986,290	\$ 801,675	\$ (184,615)	31.97	37.21	5.24
Madison	\$ -	\$ -	\$ -	9.25	9.25	-
McCone	\$ -	\$ -	\$ -	32.45	32.45	-
Meagher	\$ -	\$ -	\$ -	25.00	25.00	-
Mineral	\$ 99,258	\$ 475,953	\$ 376,694	50.45	16.18	(34.27)
Missoula	\$ 4,577,592	\$ 4,470,343	\$ (107,249)	42.29	42.77	0.48
Musselshell	\$ 159,935	\$ 222,744	\$ 62,809	42.95	38.00	(4.95)
Park	\$ 152,779	\$ 237,647	\$ 84,868	44.60	42.68	(1.92)
Petroleum	\$ 80,060	\$ 98,296	\$ 18,236	26.07	15.16	(10.91)
Phillips	\$ -	\$ 299,271	\$ 299,271	39.44	23.55	(15.89)
Pondera	\$ 310,008	\$ 417,692	\$ 107,684	42.12	35.54	(6.58)
Powder River	\$ -	\$ -	\$ -	8.86	8.86	-
Powell	\$ -	\$ 237,863	\$ 237,863	44.15	30.75	(13.40)
Prairie	\$ -	\$ 44,331	\$ 44,331	30.82	22.63	(8.19)
Ravalli	\$ 2,505,046	\$ 2,456,420	\$ (48,626)	24.35	24.96	0.61
Richland	\$ -	\$ -	\$ -	0.00	0.00	-
Roosevelt	\$ 882,336	\$ 1,116,111	\$ 233,776	44.59	38.03	(6.56)
Rosebud	\$ -	\$ -	\$ -	12.63	12.63	-
Sanders	\$ -	\$ -	\$ -	37.24	37.24	-
Sheridan	\$ -	\$ 308,713	\$ 308,713	51.87	34.79	(17.08)
Silver Bow	\$ 1,087,860	\$ 727,873	\$ (359,987)	28.98	34.80	5.82
Stillwater	\$ -	\$ -	\$ -	34.87	34.87	-
Sweet Grass	\$ -	\$ -	\$ -	34.82	34.82	-
Teton	\$ 122,390	\$ 323,655	\$ 201,265	43.56	34.00	(9.56)
Toole	\$ -	\$ -	\$ -	35.36	35.36	-
Treasure	\$ -	\$ -	\$ -	20.46	20.46	-
Valley	\$ -	\$ 466,227	\$ 466,227	45.90	31.22	(14.68)
Wheatland	\$ -	\$ -	\$ -	26.43	26.43	-
Wibaux	\$ -	\$ -	\$ -	16.11	16.11	-
Yellowstone	\$ 8,087,390	\$ 4,551,940	\$ (3,535,451)	47.93	57.76	9.83
TOTALS	\$ 41,146,435	\$ 36,266,103	\$ (4,880,332)	1934.09	1782.45	(151.64)